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## Vascular Medicine

## IMPACT OF SIMVASTATIN ON DEVELOPMENT OF NEW-ONSET DIABETES MELLITUS IN ASIAN POPULATION: THREE-YEAR CLINICAL FOLLOW UP RESULTS

Poster Contributions

Hall C

Monday, March 31, 2014, 9:45 a.m.-10:30 a.m.

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**Background:** Although statin therapy is beneficial for vascular diseases, the relationship between specific statin therapy and incidence of new-onset diabetes mellitus(DM) remains uncertain. We evaluated the impact of Simvastatin therapy on the development of new-onset DM from 3-year clinical follow up data in a series of Asian population.

**Methods:** A total of 3,436 consecutive patients who did not have DM were enrolled. New-onset DM was defined as having a fasting blood glucose  $\geq 126\text{mg/dL}$  or HbA1c  $\geq 6.5\%$ . Baseline characteristics between the Simvastatin and the control group were propensity score matched (PSM, C-statistics=0.808).

**Results:** At baseline, patients in the Simvastatin group showed higher prevalence of elderly, male gender, dyslipidemia, coronary artery disease, smoking and alcoholic history, and higher levels of HbA1c, fasting glucose, triglyceride, fibrinogen, and ALP. 3-year clinical follow up results showed a higher incidence of new-onset DM in the Simvastatin group (3.8% vs. 2%,  $p=0.017$ ). Following PSM (C-statistics=0.808), the 2 groups were well balanced except for higher levels of fibrinogen, ALT, and ALP in the Simvastatin group. After adjustment, there was no difference in the incidence of new-onset DM between the 2 groups up to 3 years (Figure).

**Conclusions:** In our study, the relationship between the use of Simvastatin and the incidence of new-onset DM remains unclear. Long-term follow up with a larger study population will be necessary for further information.

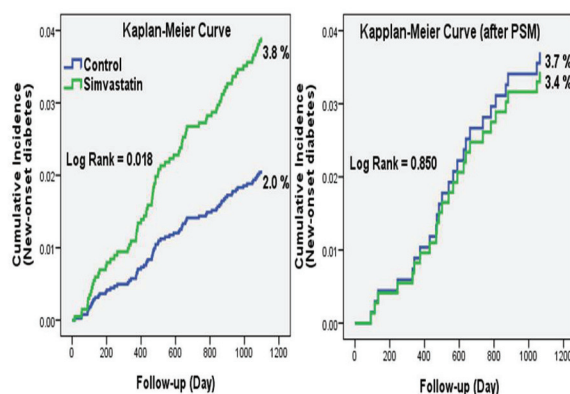


Figure. Impact of Simvastatin on new-onset DM